

Appl. No. 09/749,423

Amendments to the Specification:

Please replace the paragraph starting on p. 4, line 5 with the following amended paragraph:

In some embodiments, the network node is adapted to communicate with multiple external hosts. The network node comprises ~~is then maintained~~ a number of stationary objects, one for each of the multiple ~~a plurality of~~ external hosts. Each stationary object has a raw socket interface for receiving and sending packets. The packet filter is adapted to identify data packets having any one of a number destination addresses and to send each to a particular stationary object responsible for the particular external host from which the packet was received. Each stationary object maintains a mapping between each of destination addresses the stationary object is responsible for and a corresponding object reference of a relocatable object associated with one of a plurality of mobile hosts. Each stationary object upon receiving a data packet having a destination address through its raw socket interface performs a remote method invocation of a method of the relocatable object associated with destination address.

Please replace the paragraph starting on p. 4, line 28 with the following amended paragraph:

In the event multiple external hosts are involved, the network node is further adapted to cause to be ~~generate~~ generated a stationary object in respect of each external hosts with which the network node is in communication.

Please replace the paragraph starting on p. 14, line 30 with the following amended paragraph:

Connections through the RAN 100 are established and maintained through the use of the above-introduced r-objects and s-objects. The generation and use of these objects will now be described in detail be way of example. When a mobile host, such as mobile host (MH1) 116 attaches with the RAN 100 for the very first time through a radio node within whose coverage area the mobile host is located, for example RN1. The radio node RN1 102 to which MH1 116 attaches begins by causing to be set up an r-object for the mobile host. An object factory 120

ii
Appl. No. 09/749,423

might be provided to assist in this, an object factory being a special type of object which can create other objects in conjunction with an object registry 124 which maintains knowledge of objects which have been created and their locations. A name for the r-object is generated which in one embodiment is derived from the IP address of MH1 116. In one embodiment, the IP address of the mobile host is obtained by the mobile host MH1 116 from the radio access network 100, for example with through an exchange of DHCP (dynamic host control protocol) messages. Alternatively, a mobile host might be configured with a fixed IP address. There will be a one-to-one correspondence between MH1's IP address and the object name. For example, if the IP address of MH1 is of the form 47.159.195.1 the corresponding object name could be of the form r.47_159_195_1. The object factory 120 before creating a new object attempts to use the object registry 124 to locate the r-object. Since MH1 116 is attaching to the network for the very first time, its r-object does not exist and the object registry 124 will not find it. The object factory 120 subsequently creates an r-object 126 corresponding to MH1 116 and registers it with the object registry 124. The radio node RN1 initializes the r-object by setting up an IP divert mechanism which diverts all IP packets received from MH1 116 to the raw socket interface of the r-object.

Please replace the paragraph starting on p. 23, line 23 with the following amended paragraph:

In a final example application, the methods and systems are adapted to provide RSBP RSVP QoS support. Consider the case for the mobile host (MH1) 116 performing a handoff during an active QoS session using RSVP (resource reservation setup protocol, see for example <http://www.ietf.org/html.charters/rsvp-charter.html>) as a resource reservation protocol. Assume that MH1 116 is running an RSVP-aware application and issues RSVP commands to reserve resources in the network for a session with the fixed host (FH) 112. In this case, MH1's r-object 126 needs to be made RSVP aware. A router is RSVP aware if it has RSVP protocol software running which can identify an RSVP packet and act according to the RSVP protocol specification. When MH1's r-object receives the packet, it recognizes that it is an RSVP packet. Then r-object selects a gateway based on FH address. It obtains the s-object for FH from this gateway. The gateway needs to create the s-object in case it does not have this. MH1's r-object

Appl. No. 09/749,423

then sends a modified RSVP packet to FH's s-object 130 at the gateway 108 to set up resources between itself and the FH's s-object 130 in the access network. The IP header of the RSVP packet needs to be modified, to specify the mobile host's s-object location (typically the mobile host's radio access node). When FH's s-object 130 receives the RSVP packet, it sends yet another modified RSVP packet to the fixed host (FH) 112 to reserve resources between itself (i.e. FH's s-object 130) and FH 112, the modified RSVP packet specifying the location of the s-object (typically the gateway node).